



**Construction Contingency Increase for  
Digester and Thickener Facilities Upgrade**  
*TPAC Presentation – Item 5.A.*

November 9, 2017

**CIP Program**

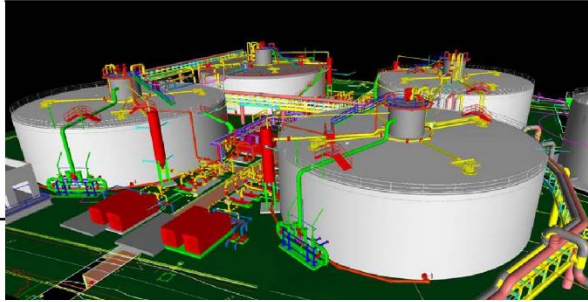


San José-  
Santa Clara  
Regional  
Wastewater  
Facility

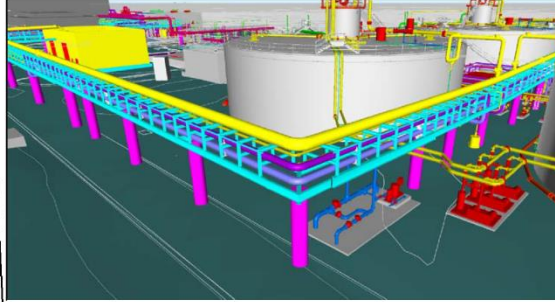


# Project Site / Scope

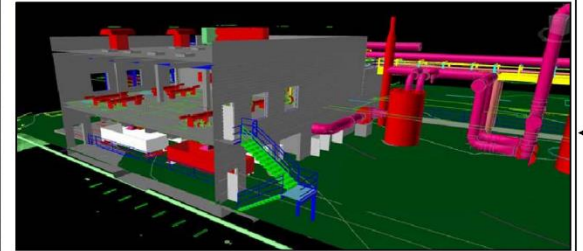
MODIFICATIONS TO DIGESTER 5-8



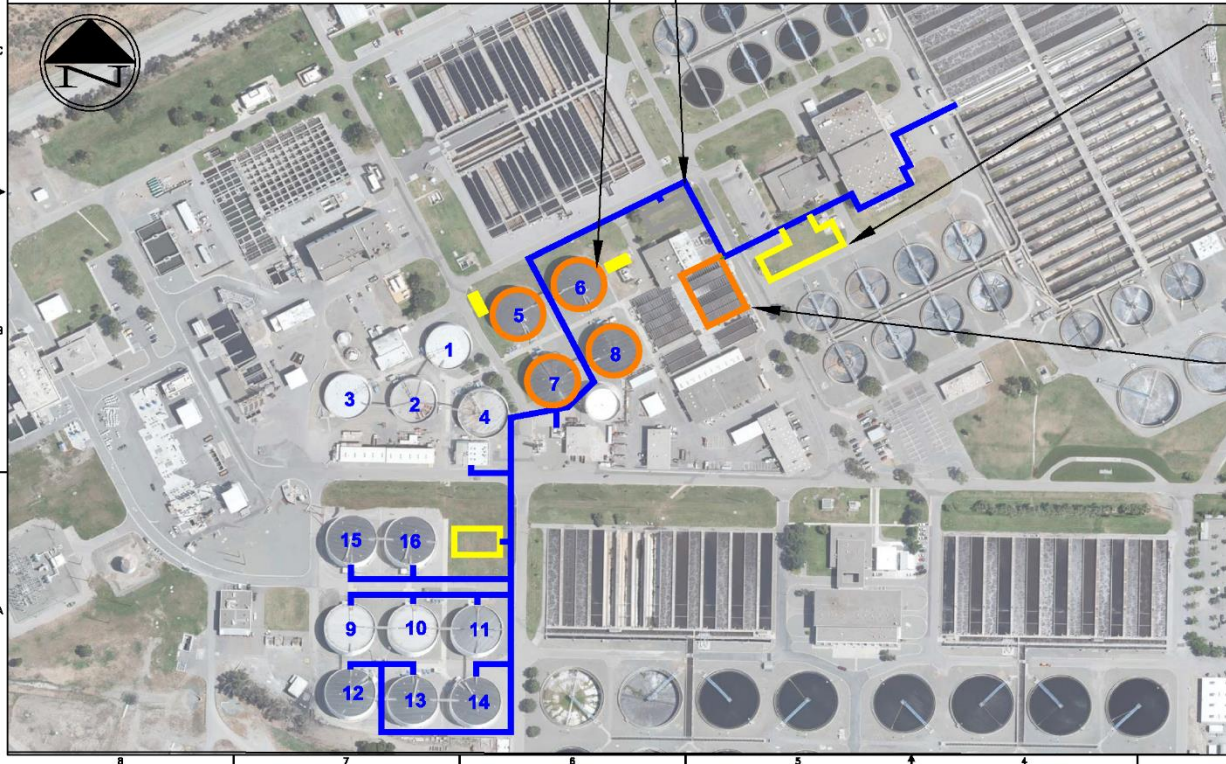
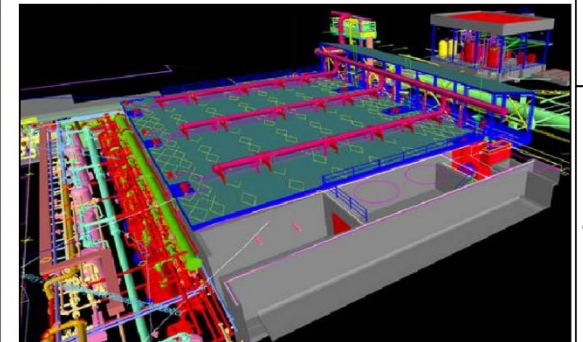
NEW ELEVATED PIPE RACK



NEW SLUDGE SCREEN, ODOR CONTROL, STEAM CONVERTERS, AND POLYMER STORAGE/BLENDING FACILITIES



MODIFICATION TO DAFT 1-6





# Construction Progress – 35% Complete



Rehabilitation of Digesters



New Above Ground Gas Piping System



New Sludge Screening Facility



Rehabilitation of DAFT Tanks

# Contingency Committed to Date – 85%

Reason for Contract Change Orders (CCOs)	Approved and Pending CCOs to Date
Underground Utility Conflicts and Unforeseen Conditions	\$2,506,434
Unexpected Regulatory Requirements	\$1,472,171
Design Changes	\$2,583,313
Deteriorated Pipe Conditions	\$3,583,320
Seismic Design Issues	\$1,000,000
Hazardous Materials Mitigation	\$445,279
<b>TOTAL</b>	<b>\$11,590,517</b>

Concurrent delays to date total 140 working days.



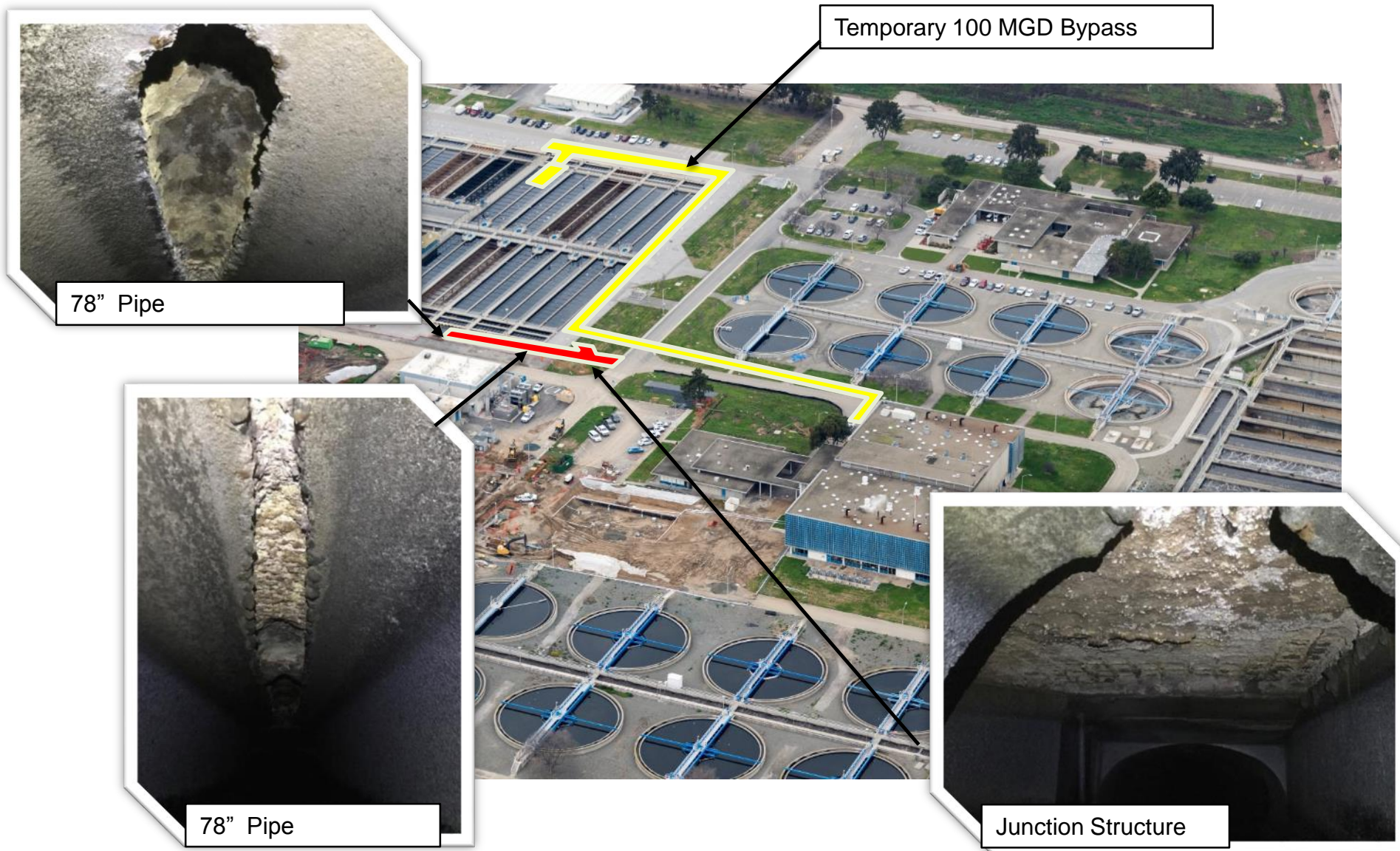
# Challenges Encountered During Construction

## Typical Use of Contingency



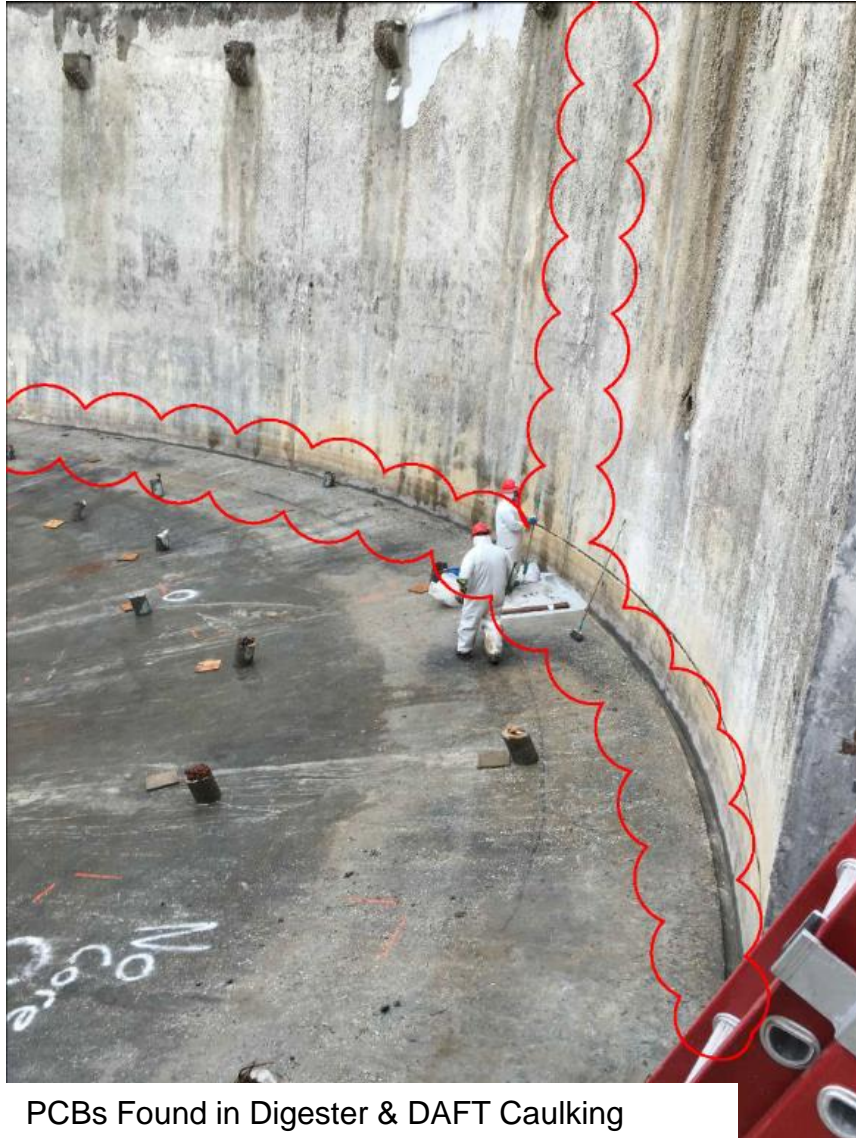


# Deteriorated Pipe Conditions





# Hazardous Materials and Seismic Design



PCBs Found in Digester & DAFT Caulking



Seismic Retrofit – Installation of Post-tension Cables



Temporary UV Protection of Seismic Cables

# Recommended Contingency Increase - \$15M

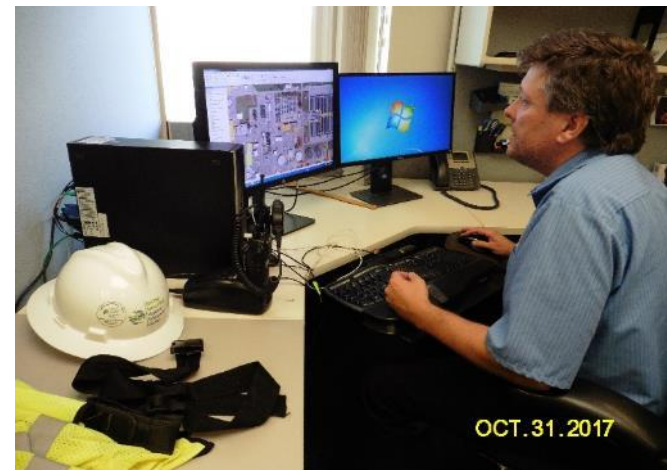
Reason for Change Orders	Approved and Pending CCOs	Forecasted Need	Total
Underground Utility Conflicts and Unforeseen Conditions	\$2,506,434	\$1,000,000	\$3,506,434
Design Changes	\$2,583,313	\$2,000,000	\$4,583,313
Unexpected Regulatory Requirements	\$1,472,171	0	\$1,472,171
Delay Damages	0	\$3,200,000	\$3,200,000
Deteriorated Pipe Conditions	\$3,583,320	\$10,700,000	\$14,283,320
Seismic Design Issues (partial funding)*	\$1,000,000	TBD	\$1,000,000*
Hazardous Materials (partial funding)*	\$445,279	TBD	\$445,279*
<b>Total</b>	<b>\$11,590,517</b>	<b>\$16,900,000</b>	<b>\$28,490,517</b>
<b>Approved Contingency</b>			<b>\$13,490,625</b>
<b>Additional Contingency Required</b>			<b>\$14,999,892</b>

\* Final costs for hazardous materials mitigation, seismic design issues and associated delays are not known at this time.



# Lessons Learned

- Subsurface Utility Investigations
- Utility Mapping and Record Drawings
- Condition Assessment of Connecting Structures
- Process Shutdown Verification
- Hazardous Materials Investigations



# Next Steps

- Complete seismic design package
- Complete PCBs Remediation Plan / EPA Approval
- Return to TPAC and Council in next 6 months with updates on:
  - Additional schedule and cost impacts
  - Additional contingency increase request



# Staff Recommendation

- a) Approve a \$15,000,000 increase to the construction contingency amount of \$13,490,625 for a revised total contingency amount of \$28,490,625 and increasing the contract not-to-exceed amount from \$121,415,625 to a total revised contract amount not-to-exceed \$136,415,625 for the 7382 – Digester and Thickener Facilities Upgrade Project.
- b) Adopt the following 2017-2018 Appropriation Ordinance Amendments in the San José- Santa Clara Treatment Plant Capital Fund:
  - (1) Decrease the Yard Piping and Road Improvements Appropriation to the Environmental Services Department by \$8,000,000;
  - (2) Decrease the Aeration Tanks and Blower Rehabilitation Appropriation to the Environmental Services Department by \$7,000,000; and
  - (3) Increase the Digester and Thickener Facilities Upgrade Appropriation Environmental Services Department by \$15,000,000